

Claims

1. A multimedia system comprising a receiving device for multimedia transmissions, a display device for graphical representation of multimedia contents, a base station including an open interface for interchangeable access control modules, and a communication module (20; 81; 83) which may be connected to the open interface, characterized by a portable operating device (40) assigned to the communication module (20; 81; 83).
2. The multimedia system according to claim 1, characterized in that the communication module (20; 81; 83) includes a modem.
3. The multimedia system according to claim 2, characterized in that the communication module (20; 81) is provided with a wireless transceiver interface.
4. The multimedia system according to any of the preceding claims, characterized in that the communication module (20; 81; 83) is coupled with the portable operating device (40) via a wireless connection.
5. The multimedia system according to any of the preceding claims, characterized in that an access control function is integrated in the communication module (20; 81; 83).
6. The multimedia system according to any of the preceding claims, characterized in that an access control function is integrated in the portable operating device (40).

7. The multimedia system according to claims 5 and 6, characterized in that the access control function is implemented by means of an exchangeable chip card (47).

8. The multimedia system according to any of the preceding claims, characterized in that the portable operating device (40) generates control information and outputs it in the form of a control signal, the control information selecting information from display information displayed on the display device.

9. The multimedia system according to claim 8, characterized in that the access control function of the portable operating device (40) controls the generation of the control information and/or the output of the control signal to the base station.

10. The multimedia system according to claim 8 or 9, characterized in that the control signals output by the portable operating device (40) are infrared signals (41).

11. The multimedia system according to any of claims 8 to 10, characterized in that the portable operating device (40) has an input unit for generating pointer position information and release information as control information, the position of a pointer (56) being able to be set on a screen (52) of the display device by means of the pointer position information in order to position the pointer (56) on a specific display information on the display device, and the position of the pointer (56) being confirmed by means of the release information.

12. The multimedia system according to claim 11, characterized in that the access control function of the portable operating device (40) controls the generation of the pointer position information and/or the release information.

14. The multimedia system according to any of claims 11 to 13, characterized in that the input unit of the portable operating device has a release key (45) for generating the release information.

15. The multimedia system according to any of claims 11 to 14, characterized in that the input unit of the portable operating device (40) has a cursor key block (44) for generating the pointer position information.

16. The multimedia system according to any of the preceding claims, characterized in that payment and/or order authorization functions are implemented on the portable operating device (40).

17. The multimedia system according to claim 16, characterized in that the payment and/or order authorization functions of the portable operating device (40) are implemented by means of an exchangeable chip card (47).

18. The multimedia system according to any of claims 8 to 17, characterized in that the portable operating device (40) has an encrypting means for encoding the control information.

19. The multimedia system, characterized in that the encoding means is integrated on an exchangeable chip card (47).

20. The multimedia system according to claim 18 or claim 19, characterized in that the communication module (20) has a

decrypting means for decoding the encoded control information received from the portable operating device (40).

21. The multimedia system according to any of the preceding claims, characterized in that the interchangeable access control modules of the base station are CAS modules.

22. The multimedia system according to claim 21, characterized in that the CAS modules are plug-in type PC cards.

23. The multimedia system according to claim 21 or claim 22, characterized in that the CAS modules and the open interface of the base station are configured in accordance with a PC standard, in particular in accordance with the DVB CI standard.

24. The multimedia system according to claim 22 or 23, characterized in that the PC card is designed to accommodate a chip card, in particular a smart card (70), and that the PC card includes a chip card reader.

25. The multimedia system according to any of the preceding claims, characterized in that the communication module (20) comprises an Internet computer.

26. The multimedia system according to claim 25, characterized in that the portable operating device (40) generates user-defined control signals for controlling the Internet computer.

27. The multimedia system according to claim 25 or claim 24, characterized in that the display device represents Internet pages under the control of the Internet computer.

28. The multimedia system according to any of claims 25 to 27, characterized in that upon an appropriate command from the portable operating device (40) the Internet computer establishes

via a modem a communication link with the Internet or World Wide Web.

29. The multimedia system according to any of the preceding claims, characterized in that the communication module (20) and/or the portable operating device has a user identification unit, in particular a SIM or SAM module.

30. The multimedia system according to any of the preceding claims, characterized in that the communication module (20; 81) is provided with a radio receiver/transmitter unit operating in accordance with a wireless transmission process, in particular the DECT process or the GSM process.

31. The multimedia system according to any of the preceding claims, characterized in that the communication module (20) has an infrared transceiver unit (22).

32. The multimedia system according to any of the preceding claims, characterized in that the communication module is configured in the form of a plug-in type PC card.

33. The multimedia system according to any of the preceding claims, characterized in that the communication module (20; 81; 83) and the open interface of the base station are configured in accordance with a PC standard, in particular in accordance with the DVB CI standard.

34. The multimedia system according to either of claims 32 or 33, characterized in that the PC card is configured to accommodate a chip card (47; 86), in particular a smart card (70), and that the PC card includes a chip card reader.

35. The multimedia system according to any of the preceding claims, characterized in that the base station is a set top box

(10) which is connected with a television set (50) as display device.

36. The multimedia system according to claim 35, characterized in that the base station or set top box (10) is integrated in the television set (50).

37. A portable operating device (40), in particular a remote control device, for the generation and transmission of control information for the control of a communication module (20; 81; 83) and/or of a display device, in particular a television set (50) having a set top box (10), comprising an input unit for inputting information, a processing unit for processing the information and for generating the control information, a transceiver unit which converts the control information into control signals and transmits the same to the communication module (20; 81; 83) and/or to the display device, and an interchangeable access control module which controls the generation of the control information and/or the transmission of the control signals.

38. The portable operating device according to claim 37, characterized in that it has a chip card reader and that the access control module is a plug-in type chip card (47).

39. The portable operating device according to claim 37 or claim 38, characterized in that the transceiver unit is an infrared transceiver unit which generates infrared signals (41) as control signals.

40. The portable operating device according to any of claims 37 to 39, characterized in that the input unit has a means, in particular a track ball (48), for generating pointer position information and a means, in particular a release key (45), for

generating release information as control information, the position of a pointer (56) being able to be set on a screen (52) of the display device in dependence on the pointer position information in order to position the pointer (56) on a specific display information, and the position of the pointer (56) being confirmed in the nature of a mouse click in dependence on the release information.

41. The portable operating device according to claim 40, characterized in that the access control module controls the generation of the pointer position information and/or the release information.

42. The portable operating device according to claim 40, characterized in that the access control module enables the transmission of the pointer position information and/or the release information as control signals.

43. The portable operating device according to any of claims 37 to 42, characterized in that payment and/or order authorization information is stored on the access control module.

44. The portable operating device according to any of claims 37 to 43, characterized in that an encoding means is provided for encoding the control information.

45. The portable operating device according to any of claims 37 to 44, characterized by an interface device for a user identification unit, in particular a SIM or SAM module.

46. The portable operating device according to any of claims 37 to 45, characterized in that a switchover key (46) is provided with which the control of a television function or an Internet function may be selected.

47. The portable operating device according to any of claims 37 to 46, characterized in that a fingerprint sensor is arranged at the surface of the operating device.

48. A communication module for a set top box (10), comprising a transceiver unit for communication and comprising a unit for coupling with a portable operating device (40).

49. The communication module according to claim 48, characterized by an Internet computer.

50. The communication module according to claim 48 or 49, characterized by an interface for a user identification unit, in particular a SIM or SAM module (30).

51. The communication module according to any of claims 48 to 50, characterized in that the transceiver unit is a radio receiver/transmitter unit which operates in accordance with a wireless transmission process, in particular the DECT process or the GSM process.

52. The communication module according to any of claims 48 to 51, characterized by a modem, in particular a data radio modem (24).

53. The communication module according to claim 52, characterized in that the modem is an ISDN modem.

54. The communication module according to claim 52 or claim 53, characterized by a telephone plug connector (84).

55. The communication module according to any of claims 48 to 54, characterized in that the unit for coupling with the portable operating device (40) is an infrared transceiver unit.



56. The communication module according to any of claims 48 to 55, characterized in that it is configured in the form of a PC card.

57. The communication module according to claim 56, characterized in that the PC card is configured in accordance with the DVB CI standard.

58. The communication module according to claim 56 or claim 57, characterized in that the PC card has an interface (26) for a chip card.

59. The communication module according to claim 58, characterized in that the PC card has an interface device for a plurality of chip cards.

60. The communication module according to any of claims 48 to 59, characterized by a converter (23) which converts computer image data into television picture data.

61. The communication module according to any of claims 48 to 60, characterized in that a decompressor (21) is provided which decompresses the data received by the transceiver unit.

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